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NLS

systems, inc.

DEL MAR, CALIFORNIA

DOCUMENT NO. 451
June, 1962

OPERATION INSTRUCTIONS

V35RB

DIGITAL VOLTMETER

This document is complete when accompanied by:

V35B Instruction Manual
NLS Drawings:

11440-500 Sheet 2	E Board, V34RB/V35RB
11440-550 Sheet 2	F Board, V34RB/V35RB
11440-700 Sheet 2	Assembly, Decade Switch

NON-LINEAR SYSTEMS, INC.

Del Mar, California

NON-LINEAR SYSTEMS, INC.

APPROVED BY: R. Hoelscher / A. Christian / J. Block	DEL MAR AIRPORT DEL MAR, CALIFORNIA	DOCUMENT NUMBER 451	REVISION
	OPERATION INSTRUCTIONS	PREPARED BY: A. Christian	DATE
	V35RB	CHECKED BY: J. Block	DATE
	DIGITAL VOLTMETER	RELEASE DATE 6-12-62	PAGE 1 OF 1

The NLS Reed Relay Digital Voltmeter, Model V35RB, is very similar to its oil-bath stepping-switch counterpart, Model V35B.

The essential differences between the two are as follows:

1. The V35RB instrument uses reed relays instead of conventional oil-bath stepping switches to perform computing, readout and printout functions.

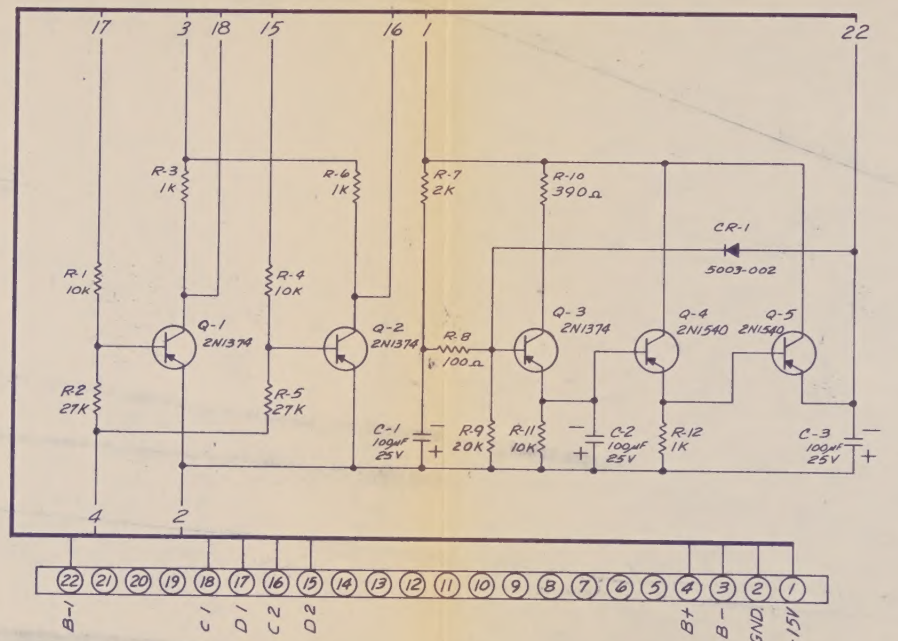
NOTE:

For operating external equipment such as data printers, readout information is applied in the "voltage level" form to the printout connector. This connector has the same pin designations as the V35B instrument, except that all decade commons are at ground potential. In the V35RB Model, zero volts represents "ON" and -12 volts represents "OFF". Up to 100 ma. may be switched to zero volts and up to 5 ma. may be switched to -12 volts. When switching this 5 ma. to the -12 volts, keep in mind that the return is through the readout lamps.

2. Disregard references in the manual to the two "D" boards which are used to drive the stepping switches. Instead, "E" and "F" boards are provided. These "E" and "F" boards supply signals to the appropriate reed-relay decade, where a counter matrix and buffer convert the signals into pulses which drive the reed relays.

Drawings 11440-500 and 11440-550 show the circuitry of the "E" and "F" boards.

REVISIONS				
SYM.	EFFECT.	DESCRIPTION	DATE	APPROVAL



11440-500
SHEET 2

NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY
APPLICATION		QTY REQD	

UNLESS OTHERWISE SPECIFIED	DRAWN BY	DATE
DIMENSIONS ARE IN INCHES	R. COLLETTA	2-9-62
TOLERANCES ON	CHECKED BY	DATE
FRACTION ± DECIMAL ± ANGLES ±	APPROVED BY	DATE
MATERIAL	FINISH	

TITLE: SCHEMATIC "E" BOARD

V34RB / V35RB

SCALE | WT.

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DRAWING NUMBER 11440-500

SHEET 2 OF

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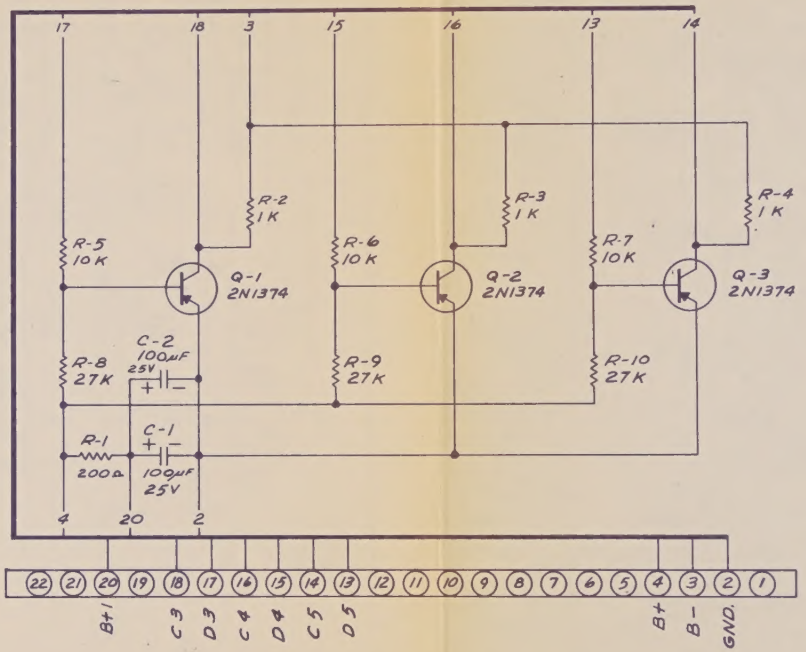
SYM.	EFFECT.	DESCRIPTION	DATE	APPROVAL



11440-550
SHEET 2

NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY
APPLICATION		QTY REQD	

UNLESS OTHERWISE SPECIFIED	DRAWN BY	DATE
DIMENSIONS ARE IN INCHES	R. COLLETTA	2-9-62
TOLERANCES ON	CHECKED BY	DATE
FRACTION ± DECIMAL ± ANGLES ±	APPROVED BY	DATE
MATERIAL	FINISH	

TITLE
SCHEMATIC
"F" BOARD

V34RB/V35RB

SCALE | WT.

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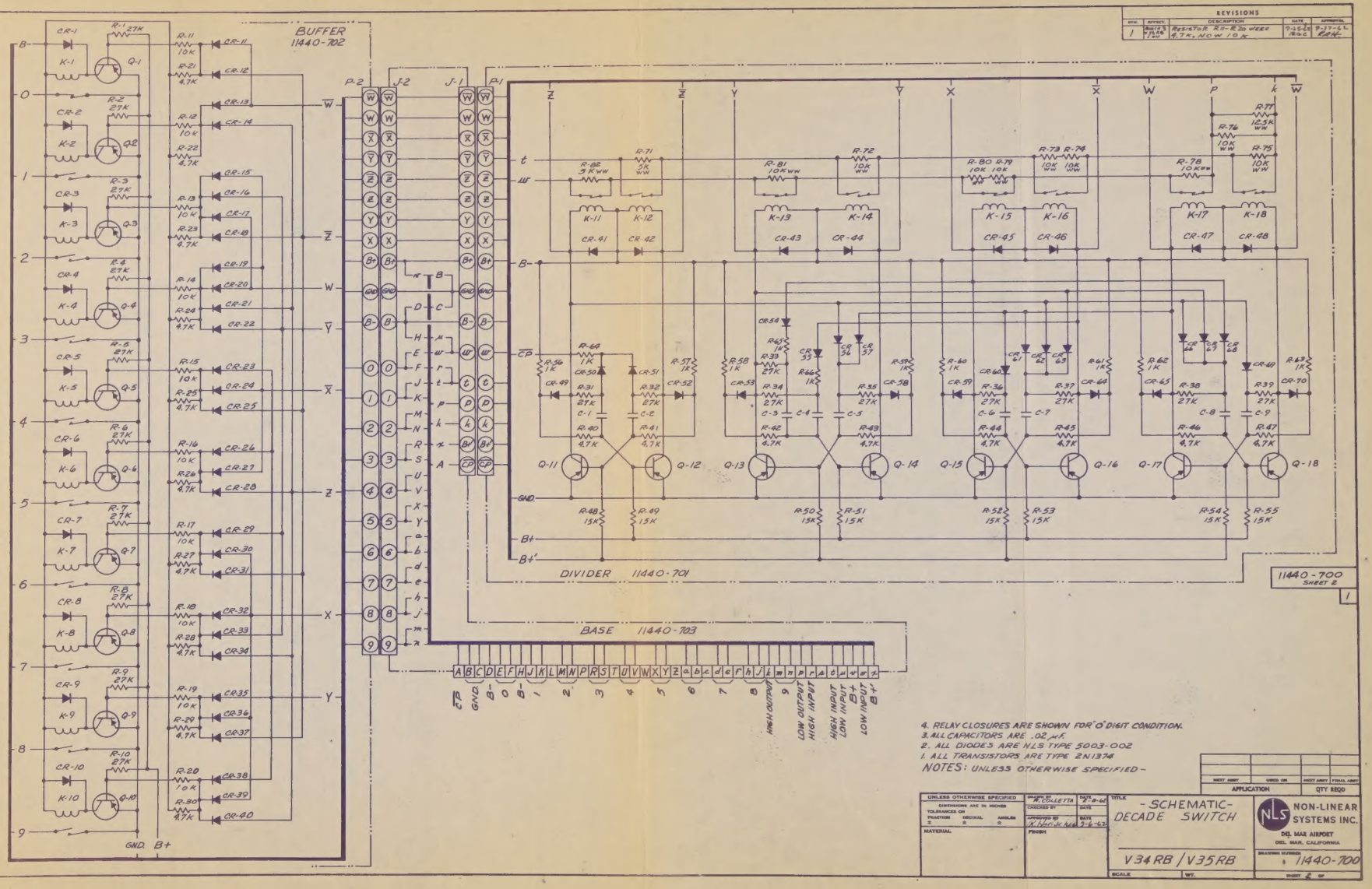
DRAWING NUMBER
11440-550

SHEET 2 OF


BUFFER
11440-702
DIVIDER 11440-701
BASE 11440-703
11440-700
SHEET 2
REVISIONS
NOTES: UNLESS OTHERWISE SPECIFIED -
1. ALL TRANSISTORS ARE TYPE 2N1374
2. ALL DIODES ARE NLS TYPE 5003-002
3. ALL CAPACITORS ARE .02 μF.
4. RELAY CLOSURES ARE SHOWN FOR '0' DIGIT CONDITION.
- SCHEMATIC-
DECADE SWITCH
V34RB / V35RB
NON-LINEAR SYSTEMS INC.
DEL MAR AIRPORT
DEL MAR, CALIFORNIA
11440-700

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